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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/602,054      | 06/24/2003  | Dae-Ho Choo          | 61920219D1          | 1023             |

7590 02/28/2006  
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Suite 1800  
1750 Tysons Boulevard  
McLean, VA 22102

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| EXAMINER |
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RUDE, TIMOTHY L

|          |              |
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| ART UNIT | PAPER NUMBER |
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2883

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/602,054 | <b>Applicant(s)</b><br>CHOO ET AL. |  |
|                              | <b>Examiner</b><br>Timothy L. Rude   | <b>Art Unit</b><br>2883            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 December 2005.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-32 and 56 is/are pending in the application.  
 4a) Of the above claim(s) 21-32 is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1,2,4-20 and 56 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. On page 3 of the response filed 06 December 2005 Applicant made the admission that the 10 June 2005 amendment to claim 1 does not result in an independent or distinct invention under MPEP 802.01. Please compare Applicant's prior admissions filed 20 May 2004, pages 3-5.

Since applicant clearly admitted on the record that the species are not patentably distinct, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. In view of said admission, objection to claim 1 is withdrawn.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

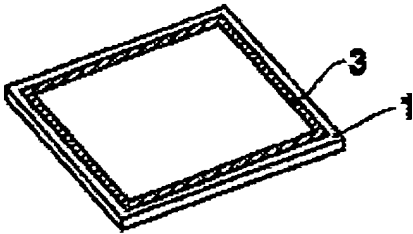
Art Unit: 2883

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

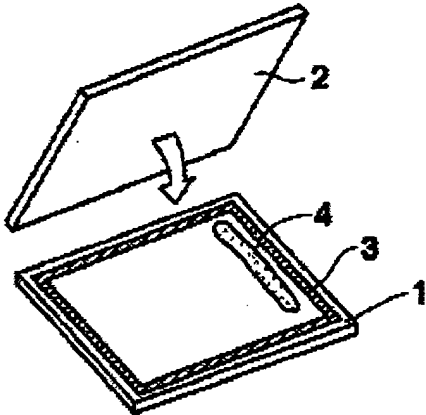
2. Claims 1, 2, 4-20, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasumi et al (Kawasumi) USPAT 5,978,065 in view of Adachi, Japanese patent application publication JP 56114928 A.

As to claim 1, Kawasumi discloses (Figures 1A-3B) apparatus and a method for manufacturing liquid crystal displays (entire patent, background of the invention, and especially col. 5, line 13 through col. 7, line 14), comprising: applying sealant on one of two substrates of a mother glass, the mother glass having at least one liquid crystal cell (col. 5, lines 14-37) [inherently requires Applicant's sealant applying unit, even if it is manual], a substrate-attaching unit, 5 and 7, conjoining substrates in a vacuum (background, suitable though more costly method – affords better degasification of liquid crystal material). Please note numerous references teach these steps/apparatus.

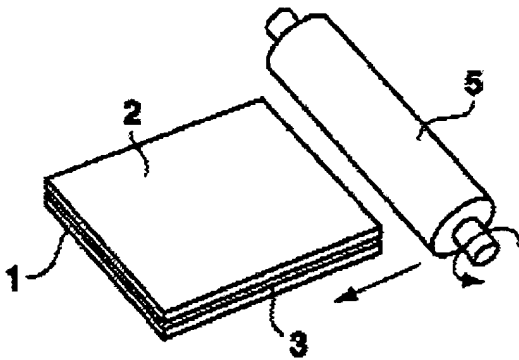
**FIG. 1A**



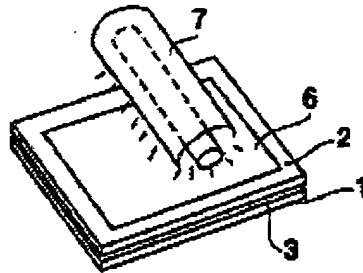
**FIG. 1B**



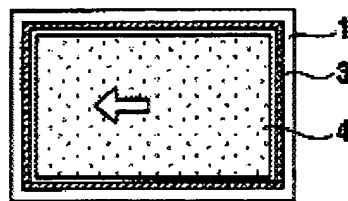
**FIG. 1C**



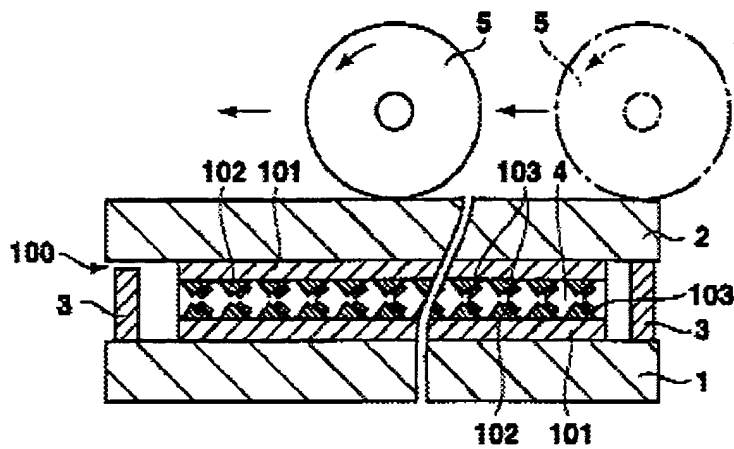
**FIG. 2**



**FIG. 3A**

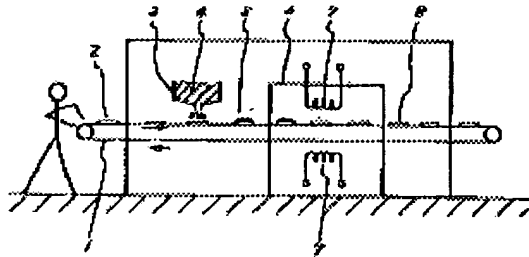


**FIG. 3B**



Kawasumi does not explicitly disclose the use of an in-line conveying unit.

Adachi teaches the use of a belt conveyor to provide a cleaner environment for the operators.



Adachi is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add the use of a belt conveyor to provide a cleaner environment for the operators.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD system of Kawasumi with the belt conveyor of Adachi to provide a cleaner environment for the operators.

As to claims 2, 4-20, and 56, Kawasumi in view of Adachi as combined above discloses the apparatus of claim 1, above. The added limitations of claims 2-20 and 56 are drawn to inventions of an in-line system that are not patentably distinct per Applicant's admission in Paper No. 20040520 [remarks filed 20 May 2004, top of pages 3 and 5]. Therefore claims 2-10 and 56 are rejected on the bases that they are not patentably distinct from rejected base claim 1.

3. Rejection of claims 1, 2, 4-20, and 56 under 35 U.S.C. 103(a) as being unpatentable over Kawasumi et al (Kawasumi) USPAT 5,978,065 in view of Ogawa USPAT 6,680,759 B2 is withdrawn.

***Response to Arguments***

Applicant's arguments filed on 06 December 2005 have been fully considered but they are not persuasive.

Applicant's ONLY substantive arguments are as follows:

(1) Objection to claim 1 should be withdrawn because added limitations are not patentably distinct. Claim 1 was amended 10 June 2005 to merely add limitations drawn to the elected in-line convey unit and to add the limitations of canceled claim 3.

(2) Ogawa is after Applicant's priority date, and an English translation is provided.

(3) Kawasumi and Adachi fail to teach a sealant heat-treating unit forming a reaction-prevention layer on a surface of the sealant to prevent a reaction between the sealant and a liquid crystal material.

(4) Dependent claims are allowable because they directly or indirectly depend from an allowable base claim.



Examiner's responses to Applicant's ONLY arguments are as follows:

(1) It is respectfully pointed out that since applicant clearly admitted on the record that the species are not patentably distinct, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. In view of said admission, objection to claim 1 is withdrawn.

(2) It is respectfully pointed out that rejections bases upon Ogawa are withdrawn.

(3) It is respectfully pointed out that Applicant has made the omission that the amended claim 1 limitations of a sealant heat-treating unit forming a reaction-prevention layer on a surface of the sealant to prevent a reaction between the sealant and a liquid crystal material are not patentably distinct from the original claim 1. Claim 1 remains rejected because Applicant's admission was used in a rejection under 35 U.S.C. 103(a) of the other invention.

(4) It is respectfully pointed out that in so far as Applicant has not argued rejection(s) of the limitations of dependent claim(s), Applicant has acquiesced said rejection(s).

Any references cited but not applied are relevant to the instant Application.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

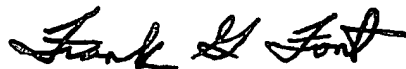
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



tlr

Timothy L Rude  
Examiner  
Art Unit 2883



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800